Message

From: Weiss, Leanne (ECY) [lewe461@ECY.WA.GOV]
Sent: 5/2/2018 4:10:29 PM
To: 'Robert Wubbena' Ex. 6 Personal Privacy (PP)
CC: akol461@ecy.wa.gov [/o=ExchangeLabs/ou=Exchange Administrative Group (FYDIBOHF23SPDLT)/cn=Recipients/cn=44bc2cb386e94927a0684ac25b121536-akol461@ecy.wa.gov]; 'Amy Hatch-Winecka' [AmyHW@thurstoncd.com]
Subject: Response to March 1 Letter
Attachments: ATT00001.txt

Dear Jack Havens, Denis Curry, and Bob Wubbena:

Thank you for your March 1, 2018 letter to Amy Hatch-Winecka at the Thurston Conversation District. Since the Department of Ecology (Ecology) is writing the Budd Inlet Total Maximum Daily Load (TMDL), we are responding to your technical TMDL questions.

The Capitol Lake Improvement and Protection Association (CLIPA) has been engaging with Ecology around Capitol Lake for many years. Your members have been part of the former Deschutes Advisory Group (DAG) and have been attending the newly formed group for the Deschutes and Budd Inlet watershed. CLIPA members and associated citizens have attended numerous multi-stakeholder meetings dating back to 2009. These groups were very active in the development of the 2015 Deschutes River TMDL and continue to participate in the upcoming Budd Inlet TMDL. Ecology staff have also met separately with CLIPA on at least a half-dozen occasions in recent years. Additionally, numerous letters and e-mails have been exchanged between CLIPA and Ecology.

We understand that you continue to have concerns regarding some of the technical work Ecology has developed over the years. However, despite the above mentioned interactions (including scientist to scientist meetings with our technical leads and Dr. Milne) we've been unable to come to mutual understanding. We will continue to do our best to answer your questions, and this letter is an attempt to do so.

Ecology will hold a formal public process as part of completing the Budd Inlet TMDL. In the meantime, we are using the recently formed Deschutes Watershed Council (*official name yet to be determined*), to keep interested agencies and citizens informed of our efforts. All stakeholders, and the public, will be given the opportunity to comment on a draft version of the Budd Inlet TMDL. We strongly encourage CLIPA to review the draft TMDL when it is available and comment during the defined public comment period.

Ecology has made information on Budd Inlet available in two interim reports. In 2012 we published a technical report of study findings, available at https://fortress.wa.gov/ecy/publications/summarypages/1203008.html. In 2015 we published a supplemental model scenarios report, available at https://fortress.wa.gov/ecy/publications/SummaryPages/1503002.html. Additional information has been presented to advisory groups over the last nine years. Many of the questions you have posed in your letter are addressed in these two reports. In particular, see page 29-76 of the 2015 supplemental model scenarios report. This report addresses your question of how the dam increases plant growth and lowers dissolved oxygen concentrations in Budd Inlet. We have discussed this particular issue with CLIPA, and we will include another summary of the impact of the Capitol Lake dam on Budd Inlet's dissolved oxygen in the draft TMDL. This report also discusses how the dam alters flow patterns, creating a pulsed or regulated flow, which is different than estuarine flow patterns.

The Budd Inlet TMDL will address violations of dissolved oxygen water quality standards in the marine water of Budd Inlet. The TMDL will address the impact of Capitol Lake on those violations in Budd Inlet. It will not address violations within Capitol Lake as suggested by your letter.

Your letter again requests model runs changing Puget Sound and/or the Capitol Lake water to zero nutrients. As explained in our previous correspondence from October 2017, these model runs would not provide useful information. Removing all human and natural sources of nutrients would certainly improve the dissolved oxygen concentration in Budd Inlet. However, management solutions only address human-caused pollution. It is infeasible to eliminate natural sources of nutrients because they are beyond human control. Ecology has conducted similar modeling runs where we remove the human sources of nutrients (but not the natural sources of nutrients). Our model runs have helped us determine the impact

of human sources of pollution on the dissolved oxygen concentration in Budd Inlet. The model runs you proposed would show that naturally occurring nutrients affect the dissolved oxygen in Budd Inlet - they would not be able to "test the counter views expressed by CLIPA" as you describe.

In your letter, you state your belief that "the Dam [is] a concrete regulator, but not a cause of the contamination." As we discussed in our last letter, at multiple stakeholder meetings, and at our meeting with CLIPA in August 2017, Ecology's studies have shown that the presence of the lake does have an impact on water quality in Budd Inlet and transforms the quality of the water that originates in the Deschutes Watershed. As depicted in Figures 11 and 12 in our 2015 supplemental monitoring report, organic carbon and organic nitrogen loads are much higher with the dam in place than with it removed. Of course, nutrients from the Deschutes Watershed do enter Capitol Lake and Budd Inlet, and the TMDL will also create allocations for the watershed to address these inputs.

Eld Inlet is included in the larger Puget Sound Nutrient Source Reduction Project as described at https://ecology.wa.gov/Water-Shorelines/Puget-Sound/Helping-Puget-Sound/Reducing-Puget-Sound-nutrients. Eld Inlet is not part of the Budd Inlet TMDL. Each inlet in Puget Sound (and Hood Canal) is very different. They have different shapes, different flow patterns, different flushing rates, and different sources of natural and human sources of pollution. The 2014 *South Puget Sound Dissolved Oxygen Study: Water Quality Model Calibration and Scenarios* explored why Eld Inlet appears to be the most sensitive inlet in South and Central Puget Sound. It is likely related to poor circulation, as Eld Inlet has double the e-folding (flushing) time as Budd Inlet. See pages 106-107.

Ecology fully supports any monitoring in the Deschutes and Budd Inlet Watershed aimed at assessing water quality. Ultimately, compliance with the Clean Water Act depends on monitoring results showing the dissolved oxygen concentrations are above the 5 and 6 mg/L state water quality standards. The TMDL will discuss future monitoring needs to assess compliance with the water quality standards.

As you know, the Budd Inlet TMDL will not dictate a specific management scenario for Capitol Lake. The Department of Enterprise Services (DES) maintains the lake as part of the Capitol Campus under a long-term lease with the Department of Natural Resources. Any specific management suggestions (including flow modifications aimed at mitigating a pulsed or regulated flow) should be sent to DES. The TMDL will set numeric dissolved oxygen allocations that DES and other entities will have to meet in order to comply with the requirements of the Clean Water Act.

Again, thank you for your interest and concern for the water quality in Budd Inlet.

Leanne

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